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BEFORE THE ARIZONA CORPORATION COMMISSION

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COMMISSIONERS

AZ CORP COMMISSION  
DOCKET CONTROL

MIKE GLEASON, Chairman  
WILLIAM A. MUNDELL  
JEFF HATCH-MILLER  
KRISTIN K. MAYES  
GARY PIERCE

IN THE MATTER OF THE APPLICATION OF  
SOUTHWEST GAS CORPORATION FOR THE  
ESTABLISHMENT OF JUST AND REASONABLE  
RATES AND CHARGES DESIGNED TO REALIZE  
A REASONABLE RATE OF RETURN ON THE  
FAIR VALUE OF ITS PROPERTIES  
THROUGHOUT ARIZONA.

DOCKET NO. G-01551A-07-0504

**NOTICE OF FILING THE  
REJOINDER TESTIMONY AND  
THE SUMMARY OF THE  
DIRECT AND REJOINDER  
TESTIMONIES OF DANIEL G.  
HANSEN, PH.D.**

GALLAGHER & KENNEDY, P.A.  
2575 E. CAMELBACK ROAD  
PHOENIX, ARIZONA 85016-9225  
(602) 530-8000

The Arizona Investment Council gives notice of the filing of the original and 13 copies  
of:

1. The rejoinder testimony of Daniel G. Hansen, Ph.D. and
2. The executive summary of Dr. Hansen's direct and rejoinder testimonies.

RESPECTFULLY SUBMITTED this 9<sup>th</sup> day of June, 2008.

GALLAGHER & KENNEDY, P.A.

Arizona Corporation Commission  
**DOCKETED**  
JUN -9 2008

DOCKETED BY NR

By

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1 **Original and 13 copies** filed this  
2 9<sup>th</sup> day of June, 2008, with:

3 Docket Control  
4 Arizona Corporation Commission  
5 1200 West Washington Street  
6 Phoenix, Arizona 85007

7 **Copies** of the foregoing delivered  
8 this 9<sup>th</sup> day of June, 2008, to:

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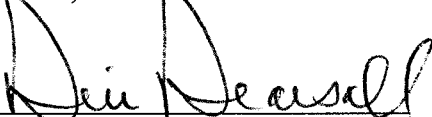
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1 **BEFORE THE ARIZONA CORPORATION COMMISSION**

2 **COMMISSIONERS**

3 MIKE GLEASON, Chairman  
4 WILLIAM A. MUNDELL  
5 JEFF HATCH-MILLER  
6 KRISTIN K. MAYES  
7 GARY PIERCE

8 IN THE MATTER OF THE APPLICATION OF  
9 SOUTHWEST GAS CORPORATION FOR THE  
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12 A REASONABLE RATE OF RETURN ON THE  
13 FAIR VALUE OF ITS PROPERTIES  
14 THROUGHOUT ARIZONA.

DOCKET NO. G-01551A-07-0504

15 **Rejoinder Testimony of**

16 **Daniel G. Hansen, Ph.D.**

17 **on Behalf of**

18 **Arizona Investment Council**

19  
20  
21 **June 9, 2008**  
22  
23  
24

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1 **1. INTRODUCTION**

2 **Q. PLEASE STATE YOUR NAME AND ADDRESS.**

3 A. My name is Daniel G. Hansen. My business address is 4610 University Avenue,  
4 Suite 700, Madison, Wisconsin 53705.  
5

6 **Q. DID YOU PREVIOUSLY FILE DIRECT TESTIMONY IN THIS DOCKET ON**  
7 **APRIL 11, 2008?**

8 A. Yes, I did.  
9

10 **Q. WHAT IS THE PURPOSE OF THIS REJOINDER TESTIMONY?**

11 A. Its primary purpose is to respond to the arguments raised in opposition to the Revenue  
12 Decoupling Adjustment Provision ("RDAP") and the Weather Normalization Adjustment  
13 Provision ("WNAP") (1) in the direct testimony of RUCO witness Mr. Rigsby, as well as  
14 the surrebuttal testimony of Ms. Diaz Cortez which adopts Mr. Rigsby's direct testimony  
15 and (2) in the direct testimony of Mr. Radigan filed March 28, 2008 and his surrebuttal  
16 testimony. I will also summarize the key reasons why the RDAP and WNAP should be  
17 approved by this Commission and provide the Commission information on revenue  
18 decoupling pilot programs I evaluated that were instituted and are still in effect in the  
19 states of Utah and Oregon.  
20

21 **Q. HOW IS THE REMAINDER OF YOUR TESTIMONY ORGANIZED?**

22 A. Section 2 reviews the reasons that RDAP and WNAP should be approved; Section 3  
23 provides support for the pilot programs proposed by Southwest Gas Company  
24

1 (“Southwest Gas” or “the Company”); Section 4 responds to arguments by Mr. Radigan,  
2 Mr. Rigsby, and Ms. Diaz Cortez; and Section 5 provides my recommendations.  
3

4 **2. KEY REASONS WHY RDAP AND WNAP SHOULD BE APPROVED**

5 **Q. WHAT ARE THE BENEFITS OF RDAP?**

6 A. As explained in my direct testimony, RDAP has the following key benefits:

- 7 1. RDAP eliminates the Company’s disincentive to support conservation and  
8 energy efficiency due to regulatory lag (pp. 3-4);
- 9 2. RDAP preserves, and potentially increases, the customer-level incentive to  
10 conserve that exists in standard rates (pp. 5-6);
- 11 3. RDAP improves the Company’s ability to attract capital at reasonable rates by  
12 providing improved stability in revenues (p. 7); and
- 13 4. RDAP may reduce the frequency of rate cases (p. 7).  
14

15 **Q. WHAT ARE THE BENEFITS OF WNAP?**

16 A. As I discussed at pages 8-10 of my direct testimony, WNAP reduces weather risk for  
17 both the Company and its ratepayers. This is possible, because when weather makes one  
18 party better off, the other party is worse off. Therefore, because WNAP reduces the  
19 weather-induced variability of Company revenues, it also reduces the weather-induced  
20 variability of customer bills. Because WNAP includes ratepayer-specific bill adjustments  
21 and affects bills in the current month, it is effective in reducing weather risk for  
22 individual ratepayers. I will discuss this issue further in my response to the Staff and  
23 RUCO testimony.  
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**Q. DO RDAP AND WNAP WORK WELL IN COMBINATION?**

A. Yes. As I discussed at pages 11-12 of my direct testimony, RDAP and WNAP work particularly well together. WNAP helps to reduce the size of the RDAP deferrals, which improves rate stability over time. RDAP eliminates concern regarding the definition of normal weather used in WNAP, so that weather adjustments will not be skewed toward either the Company or its ratepayers over time.

**3. PILOT PROGRAM PROPOSAL**

**Q. AT PAGES 23-25 OF HIS REBUTTAL TESTIMONY, MR. CONGDON SUGGESTS THAT THE COMMISSION AUTHORIZE RDAP AND WNAP ON A PILOT BASIS. MR. SCHLEGEL SUPPORTS THAT CONCEPT IN HIS SURREBUTTAL TESTIMONY. DO YOU HAVE EXPERIENCE WITH SUCH PILOT PROGRAMS IN OTHER STATES?**

A. Yes, I provided evaluations of both revenue decoupling and weather adjustment pilot programs in Oregon and provided testimony on behalf of the Utah Division of Public Utilities regarding a revenue decoupling mechanism in that state.

**Q. PLEASE DESCRIBE THE OREGON DECOUPLING PILOT PROGRAM.**

A. In Order No. 02-634, the Oregon Public Utility Commission approved a three-year decoupling pilot program for Northwest Natural Gas beginning on October 1, 2002. The Order also required an independent review by March 21, 2005 to determine whether the



1 mechanism should be continued beyond its initial termination date of September 30,  
2 2005. Dr. Steven Braithwait and I conducted the independent review.

3 The review was quite extensive and included assessments of the effect of  
4 decoupling on:

- 5 • Utility and ratepayer incentives;
- 6 • Utility and ratepayer risk;
- 7 • Utility financial outcomes;
- 8 • Utility behavior, including marketing efforts, energy efficiency program  
9 performance, an analysis of new customer connections and corporate  
10 culture and organization;
- 11 • Service quality;
- 12 • Connections practices; and
- 13 • Utility finances (e.g., bond ratings).

14 In addition, we interviewed other interested parties to obtain their views on the  
15 mechanism and its effect on the utility's behavior. At the conclusion of the review, we  
16 recommended the continued use of decoupling.

17 The Oregon Commission accepted our recommendation and extended the pilot an  
18 additional four years. The decoupling pilot was recently extended again and is currently  
19 set to expire on October 31, 2012.

1 **Q. PLEASE DESCRIBE THE OREGON WEATHER ADJUSTMENT MECHANISM**  
2 **PILOT PROGRAM.**

3 A. In Order No. 03-057, the Oregon Public Utility Commission approved a five-year  
4 weather adjustment mechanism ("WARM") pilot program for Northwest Natural Gas  
5 beginning on September 1, 2003. The Order required "a report on the functioning of  
6 WARM, including any proposed refinements to the program"<sup>1</sup> by September 30, 2005.  
7 Dr. Steven Braithwait and I also prepared that report.

8 The review included:

- 9 • An assessment of the effect of WARM on utility and ratepayer incentives;
- 10 • An assessment of the effect of WARM on utility and ratepayer risk;
- 11 • A review of weather normalization programs used in the United States;
- 12 • Analyses and simulations of program outcomes; and
- 13 • An examination of service quality issues.

14 The report recommended the continued use of a weather adjustment mechanism. The  
15 pilot program was recently extended to October 31, 2012. This date was selected so that  
16 the pilot program periods for the decoupling and weather adjustment mechanisms would  
17 match, allowing for a future joint examination of the programs.

18  
19 **Q. PLEASE DESCRIBE THE UTAH DECOUPLING PILOT PROGRAM.**

20 A. The Public Service Commission of Utah approved a three-year decoupling pilot program  
21 (called the Conservation Enabling Tariff, or "CET") for Questar Gas Company to begin  
22

23 

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<sup>1</sup> Page 3, Appendix C to Oregon Public Utility Commission Order No. 03-507.

1 on November 1, 2006. The Order required a one-year review of the program to provide  
2 parties with the opportunity to recommend modifications to, or the termination of, the  
3 decoupling mechanism. I provided testimony on behalf of the Utah Division of Public  
4 Utilities and recommended the continuation of the pilot program.

5 The Commission agreed: "We view the remaining two years of the Pilot Period  
6 as an opportunity to gain more experience and gather more information by which we may  
7 evaluate the benefits and detriments of the CET."<sup>2</sup>  
8

9 **Q. DO YOU RECOMMEND THE USE OF THE PILOT PROGRAM MODEL FOR**  
10 **SOUTHWEST GAS?**

11 A. Yes. Pilot programs provide regulators and other parties the opportunity to observe how  
12 a mechanism functions without the risk of incurring any long-term adverse effects they  
13 suspect might come to pass. In addition, they provide the opportunity to fine tune the  
14 mechanism in response to real-world experience. While I believe that RDAP and WNAP  
15 are well-designed programs that will outlive a pilot program period, the use of a pilot  
16 may provide information that allows for the mechanisms to be improved.  
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23 \_\_\_\_\_  
24 <sup>2</sup> November 5, 2007 Order in Docket No. 05-057-T01, p. 13.

1   **4.    RESPONSE TO MR. RADIGAN, MR. RIGSBY AND MS. DIAZ CORTEZ**

2   **Q.    BOTH THE RUCO AND STAFF WITNESSES STATE THAT WNAP SHIFTS**  
3   **WEATHER RISK FROM SHAREHOLDERS TO RATEPAYERS.<sup>3</sup> DO YOU**  
4   **AGREE?**

5   A.   No. They make this claim repeatedly and without any support or justification. It seems  
6       to be based on a view that risk is a zero sum game, so that if risk is reduced for one party,  
7       it must be increased for another. A simple example shows that this is not the case.

8               Suppose that weather in a winter month can only be one of two things: mild, in  
9       which case the customer pays \$20 in non-gas costs; or cold, in which case the customer  
10      pays \$30 in non-gas costs. In this example, the allowed non-gas revenue is \$25. In a  
11      mild winter month, the utility undercollects by \$5 ( $= \$20 - \$25$ ), while the customer  
12      underpays by \$5. In a cold winter month, the utility overcollects by \$5 ( $= \$25 - \$20$ ),  
13      while the customer overpays by \$5.

14             It would be easy to design WNAP if the world worked this way. In a mild winter  
15      month, the customer's non-gas bill is increased by \$5, and in a cold winter month the  
16      customer's non-gas bill is decreased by \$5. After the "WNAP" adjustment is made, the  
17      utility collects \$25 and the customer pays \$25 no matter what happens with the weather.

18             Prior to the adjustment, both the utility and the customer faced weather risk.  
19      After the adjustment, neither the utility nor the customer face weather risk. This  
20      demonstrates that a weather adjustment mechanism reduces risk for both the utility and  
21      the ratepayers.

22  
23             

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<sup>3</sup> Rigsby Direct, p. 7; Diaz Cortez Surrebuttal, p. 9; and Radigan Surrebuttal, pp.4 and 10.  
24

1 Q. THAT WAS A VERY SIMPLE EXAMPLE. DOES IT ACTUALLY  
2 DEMONSTRATE HOW WNAP WOULD WORK?

3 A. Yes, the example contains all of the basic features of volumetric non-gas rates and  
4 WNAP: weather conditions that make one party better off make the other party worse off  
5 and a mechanism that makes customer-specific adjustments to the non-gas portion of the  
6 bill. The details of WNAP are more complicated because of the need to accommodate a  
7 broader range of weather conditions and customers.

8 WNAP reduces weather risk for both the Company and its ratepayers. The  
9 Company will experience reduced variability of non-gas revenues and customers will  
10 experience reduced variability in the non-gas portion of their bills. Another customer  
11 advantage is the WNAP adjustments affect the *current* bill, so that relief from the effects  
12 of a cold winter month are provided immediately. Also, the WNAP adjustments are  
13 based on customer-specific data, so that the size of the adjustment is appropriate given  
14 each customer's weather sensitivity.

15  
16 Q. MS. DIAZ CORTEZ CLAIMS THAT UNDER RDAP "THE PRICE MESSAGE  
17 AS IT RELATES TO INCENTING CONSERVATION IS DILUTED SO THAT  
18 THE CUSTOMER WILL NOT SEE AS COMPELLING OF A CONSERVATION  
19 PRICE MESSAGE UNDER THE PROPOSED RDAP AS THEY OTHERWISE  
20 WOULD ABSENT THE RDAP."<sup>4</sup> DO YOU AGREE?

21 A. No. Ms. Diaz Cortez appears to be confusing the effect of RDAP on *all* customers with  
22 the effect of RDAP on the incentives for *any one* customer. That is, when customers

23  
24 <sup>4</sup> Diaz Cortez Surrebuttal, p. 6.

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22 the effect of RDAP on the incentives for *any one* customer. That is, when customers

23  
24 <sup>4</sup> Diaz Cortez Surrebuttal, p. 6.

1 conserve under RDAP, the applicable customer group as a whole will "repay" the  
2 Company for the associated reduction in non-gas revenue. Therefore, it may appear that  
3 RDAP reduces the customers' incentive to engage in conservation by the amount of the  
4 non-gas rate.

5 However, that's not the case. Any *one* customer who conserves energy promptly  
6 receives the full reduction and corresponding conservation signal in non-gas revenue on  
7 his or her current bill. It's only in the next year that customer "repays" an imperceptibly  
8 small portion of it through the RDAP deferral. This means that the customer-level  
9 incentive to conserve is essentially unchanged by the presence of RDAP.

10  
11 **Q. HAVE OTHER GROUPS RECOGNIZED THAT DECOUPLING DOES NOT**  
12 **SIGNIFICANTLY ALTER THE CUSTOMER-LEVEL INCENTIVE TO**  
13 **CONSERVE?**

14 A. Yes. The Natural Resources Defense Council ("NRDC") supports using decoupling to  
15 sever the link between sales and revenues, but does not support the use of high fixed  
16 charges. In their article, "Breaking the Consumption Habit", which appeared in The  
17 Electricity Journal in December 2001, the NRDC concludes that high fixed charges  
18 should not be used as a substitute for decoupling because "We should not make a bad  
19 situation worse by reducing customers' rewards for using less electricity, which is  
20 precisely what would happen if we raised their fixed charges and cut their usage-based  
21 distribution charges by a corresponding amount." While this article was written from the  
22 electricity perspective, the same argument applies to the natural gas industry. That's  
23 evidenced by the NRDC's support for natural gas decoupling mechanisms in their joint  
24

1 statement with the AGA. (This joint statement has been included as Exhibit A to  
2 Mr. Miller's direct testimony.)  
3

4 **Q. CAN RDAP *INCREASE* THE CUSTOMER-LEVEL INCENTIVE TO**  
5 **CONSERVE?**

6 A. Yes. For example, suppose that a customer anticipates that other customers will  
7 conserve—perhaps because of the introduction of a new DSM program. Based on this,  
8 the customer expects a rate increase in the following year through the RDAP deferral.  
9 The expectation of the higher rate will increase the benefits the customer perceives in  
10 engaging in conservation and energy efficiency. That example is described in greater  
11 detail on page 6 of my direct testimony.  
12

13 **Q. IS IT FAIR FOR RDAP TO REQUIRE THE CUSTOMER GROUP AS A WHOLE**  
14 **TO PAY FOR THE REDUCTIONS IN NON-GAS REVENUES FROM**  
15 **CONSERVING CUSTOMERS?**

16 A. I believe that it is. For example, it is no different from the use of regulatory surcharges  
17 collected from all customers to fund DSM programs. Like RDAP deferrals, these rates  
18 are paid by all ratepayers, but the direct benefits of the DSM programs are limited to  
19 participating customers. However, there are indirect benefits—potentially associated  
20 with environmental improvements or reductions in commodity costs—that are shared  
21 with all customers.  
22  
23  
24



1 Q. MS. DIAZ CORTEZ TESTIFIED THAT "THE RDAP WOULD ONLY ADJUST  
2 BILLING DETERMINANTS FOR THERMS LOST TO CONSERVATION AND  
3 IGNORE ANY GAINS IN BILLING DETERMINANTS DUE TO GROWTH."<sup>5</sup>  
4 DO YOU AGREE?

5 A. No. This statement indicates that Ms. Diaz Cortez may not understand how RDAP  
6 works. First, RDAP does not "adjust billing determinants." Rather, it causes revenue to  
7 be added to or subtracted from a deferral account because of differences between allowed  
8 and actual use per customer. The total deferrals for the year—positive or negative—are  
9 then converted into a rate adjustment for the following year.

10 Second, RDAP does not adjust only for "therms lost to conservation." RDAP will  
11 add to or subtract from the deferral account whenever there is a difference between  
12 allowed and actual use per customer, regardless of the cause of that difference.

13 Third, RDAP will not "ignore any gains in billing determinants due to growth" if  
14 the growth is associated with increases in use per customer. It is true that RDAP will not  
15 create a deferral when average-sized customers are added to the system. That is, if  
16 customers are added, but use per customer does not change, the RDAP won't do  
17 anything. This allows the Company to recover additional non-gas revenue to cover costs  
18 associated with serving the added customers, which also occurs under standard rates.  
19 Alternatively, if *existing* customers increase usage relative to the approved levels, RDAP  
20 will cause rates to go down in the following year.

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<sup>5</sup> Diaz Cortez Surrebuttal, p. 4.

1 Her misconceptions regarding how RDAP works appear to be the source of her  
2 view that RDAP “truly is biased.”<sup>6</sup> In fact, RDAP rate adjustments can lead to either rate  
3 increases or rate decreases. However, if RDAP is successful in increasing the level of  
4 conservation and energy efficiency, the deferrals will tend to lead to rate increases. I  
5 don’t believe that such rate increases should be viewed as a bias, because, as I’ve pointed  
6 out, customers would also benefit from the increased conservation and energy efficiency  
7 activity.

8  
9 **Q. TO SUPPORT HIS ARGUMENTS AGAINST RDAP, MR. RADIGAN CITED**  
10 **THE MAINE EXPERIENCE WITH DECOUPLING, AS DESCRIBED IN A**  
11 **NARUC DECOUPLING FAQ DOCUMENT.<sup>7</sup> DID HE OMIT ANY RELEVANT**  
12 **INFORMATION FROM THAT DOCUMENT?**

13 **A.** Yes. NARUC included a box on page 8 of the FAQ document that describes Maine’s  
14 decoupling experience. Not included in Mr. Radigan’s reference was this important  
15 conclusion:

16 It should be noted that while decoupling is often cited as the culprit  
17 here, in fact the economic downturn was the problem. Traditional  
18 regulation would have eventually yielded rate changes through a  
19 traditional rate case and the resulting price increases would have  
20 reflected the same economic circumstances. (Emphasis added.)  
21  
22

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23 <sup>6</sup> Ibid., p. 5.

24 <sup>7</sup> Radigan Direct, pp. 8-9.

1 As the quote indicates, NARUC does not believe that Maine's experience with  
2 decoupling revealed any fundamental problem with the mechanism itself.  
3

4 **Q. MR. RADIGAN ARGUES THAT "THERE HAS BEEN NO SHOWING IN THIS**  
5 **CASE THAT A LACK OF REVENUE DECOUPLING IS A MAJOR OBSTACLE**  
6 **TO ENERGY EFFICIENCY."<sup>8</sup> DO YOU HAVE ANY SUCH EVIDENCE TO**  
7 **GIVE THE COMMISSION?**

8 **A.** Yes. The Order associated with the Questar Gas Company ("QGC") decoupling  
9 proceeding contained the following summary of the views of Utah Clean Energy and  
10 Southwest Energy Efficiency Project ("UCE/SWEEP"):

11 UCE/SWEEP argue removing financial disincentives and aligning  
12 the interests of the utility with that of the consumer are critical for  
13 advancing natural gas energy efficiency. In UCE/SWEEP's view,  
14 since the CET (the decoupling mechanism) has removed such  
15 disincentives, Questar has undergone a transformation in its  
16 interest and actions with respect to DSM. In addition, to date,  
17 UCE/SWEEP claim the CET has not adversely affected rates and  
18 QGC has moved from having no DSM programs to aggressively  
19 implementing DSM.<sup>9</sup> (Parenthetical comment added.)  
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23 <sup>8</sup> Radigan Surrebuttal, p. 9.

24 <sup>9</sup> Public Service Commission of Utah Order for Docket No. 05-057-T01, p. 9.

1 The findings of the Commission supported this view: "All parties express satisfaction  
2 with Questar Gas's initial effort to begin offering customer energy efficiency programs  
3 and we concur the effort is a positive change from prior inaction."<sup>10</sup>

4 In addition, as part of my independent evaluation of decoupling in Oregon, I  
5 interviewed a number of interested third parties to obtain their views regarding the  
6 utility's performance under decoupling. These included Ralph Cavanagh of the NRDC;  
7 Margie Harris, Executive Director for the Energy Trust of Oregon (which administers the  
8 majority of the DSM programs in Oregon); and Bob Jenks, Executive Director of the  
9 Citizens' Utility Board. The report summarized these interviews as follows:<sup>11</sup>

10 The input that we received from these individuals consistently  
11 indicated that NW Natural is sincere in its commitment to promote  
12 conservation efforts, specifically in the form of high-efficiency  
13 furnaces... Taken together, we believe that the views expressed to  
14 us indicate that NW Natural takes its commitment to promoting  
15 energy efficiency seriously.

16 The experience to date in both Oregon and Utah provides two examples in which  
17 the utilities' efforts in pursuing conservation and energy efficiency have been positively  
18 influenced by the introduction of decoupling.

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<sup>10</sup> *Ibid.*, p. 10.

23 <sup>11</sup> "A Review of Distribution Margin Normalization as Approved by the Oregon Public Utility Commission for  
24 Northwest Natural", March 2005, pp. 47-48.

1 **Q. IS IT REASONABLE TO APPLY THE EXPERIENCE IN OREGON AND UTAH**  
2 **TO SOUTHWEST GAS?**

3 A. Yes. All three of the utilities face (or faced) the same disincentive to promote  
4 conservation and energy efficiency in the absence of decoupling. Specifically, because  
5 fixed non-gas costs are recovered through volumetric rates, each utility is (or was) made  
6 worse off when customers conserve energy. Decoupling removes this disincentive by  
7 breaking the link between usage and non-gas revenues.  
8

9 **Q. MR. RADIGAN QUESTIONS WHETHER USE PER CUSTOMER WILL**  
10 **CONTINUE TO DECLINE.<sup>12</sup> DO YOU HAVE AN OPINION ON THIS ISSUE?**

11 A. I find Mr. Radigan's views on this matter to be contradictory. On the one hand, he  
12 questions whether use per customer will continue to decline. On the other hand, he  
13 argues that RDAP is unfair because "ratepayers generally don't like clauses that are  
14 designed to automatically increase their bills."<sup>13</sup> However, RDAP will only *increase*  
15 customer bills *if use per customer continues to go down*. In fact, if use per customer were  
16 to reverse its historical pattern and instead increases, RDAP will automatically *reduce*  
17 ratepayers' bills.

18 RDAP produces balanced results. RDAP mitigates the financial losses associated  
19 with further reductions in use per customer that may occur. If those reductions do not  
20 occur, Mr. Radigan should have no problem with the fact that RDAP will not lead to rate  
21 increases.  
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23 <sup>12</sup> Radigan Surrebuttal, p. 7.

24 <sup>13</sup> Radigan Direct, p. 5.

1           Therefore, I don't believe that the approval of RDAP should be based on whether  
2 one expects use per customer to continue to decline (in the absence of increased  
3 conservation and energy efficiency efforts induced by decoupling). The utility's  
4 disincentive to support conservation and energy efficiency is removed by RDAP  
5 regardless of what happens to use per customer.  
6

7 **Q. MR. RADIGAN ALSO QUESTIONS WHETHER RDAP WILL REDUCE THE**  
8 **FREQUENCY OF RATE CASES.<sup>14</sup> DO YOU HAVE AN OPINION ON THIS**  
9 **ISSUE?**

10 **A.** Yes. As stated in my direct testimony, I believe that RDAP will, all else equal, reduce  
11 the frequency of rate cases. I am not alone in this view. Attachment 3 to Mr. Rigsby's  
12 direct testimony contains a presentation on decoupling by Dr. Dismukes of LSU. Slide 2  
13 of this presentation lists the arguments in favor of revenue decoupling, which include  
14 "Reduces regulatory costs and the need for frequent rate cases." Correspondingly,  
15 slide 17 of his presentation lists some alternatives to revenue decoupling. The last  
16 alternative stated is "More frequent rate cases: traditional approach at correcting rates  
17 that get out of balance." Obviously, Dr. Dismukes expects that decoupling will tend to  
18 reduce the frequency of rate cases. Having opposed Dr. Dismukes in the Questar Gas  
19 Utah proceeding, I can tell you that he does not support decoupling. While he and I  
20 disagree on many issues regarding decoupling, we do agree on the effect decoupling will  
21 have on the frequency of rate cases.  
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24 <sup>14</sup> Radigan Direct, p. 5.

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1 Q. DOES THIS COMPLETE YOUR REJOINDER TESTIMONY?

2 A. Yes.

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**EXECUTIVE SUMMARY  
OF THE DIRECT AND  
REJOINDER TESTIMONIES OF  
DR. DANIEL G. HANSEN  
ON BEHALF OF THE ARIZONA INVESTMENT COUNCIL**

**SOUTHWEST GAS CORPORATION  
DOCKET NO. G-01551A-07-0504**

I recommend that the Commission approve the Revenue Decoupling Adjustment Provision ("RDAP") and Weather Normalization Adjustment Provision ("WNAP").

In relation to regulatory orders in Oregon and Utah, I have conducted evaluations of decoupling and weather normalization programs in those states. I've also testified on behalf of an environmental organization concerning a decoupling mechanism proposed by Connecticut Light & Power and served on a panel on the subject before the Massachusetts Department of Public Utilities. Those evaluations and experience with revenue decoupling and weather normalization programs demonstrate that RDAP provides the following benefits:

1. Eliminates the Company's disincentive to support conservation and energy efficiency due to regulatory lag;
2. Preserves, and potentially increases, the customer-level incentive to conserve that exists in standard rates;
3. Improves the Company's ability to attract capital at reasonable rates by providing improved stability in revenues; and
4. May reduce the frequency of rate cases.

WNAP reduces weather risk for both the Company and its ratepayers. This is possible, because when weather makes one party better off, the other party is worse off. Therefore, because WNAP reduces the weather-induced variability of Company revenues, it also reduces the weather-induced variability of customer bills. Because WNAP includes ratepayer-specific bill adjustments and affects bills in the current month, it is effective in reducing weather risk for individual ratepayers.

In addition, RDAP and WNAP work particularly well together. WNAP helps to reduce the size of the RDAP deferrals, which improves rate stability over time. RDAP eliminates concern regarding the definition of normal weather used in WNAP, so that weather adjustments will not be skewed toward either the Company or its ratepayers over time.

RDAP and WNAP are fair. They only recover non-gas revenues that have been reviewed and approved in a rate case. Any rate increases that occur through RDAP because of enhanced conservation or energy efficiency are no different from, for example, the charges commonly used to fund DSM programs.

Staff and RUCO have offered no compelling arguments against RDAP and WNAP. Several of their objections are based on misconceptions, including:

- A false belief that RDAP will reduce the customer-level incentive to conserve. In fact, RDAP may even increase the customer-level incentive to conserve.
- A false belief that WNAP will shift risk from the Company to its ratepayers. In fact, WNAP reduces weather risk for both the Company and its ratepayers.
- A false belief that RDAP is biased because it only adjusts for therms lost to conservation, but ignores gains due to growth. In fact, RDAP adjusts non-gas revenues for any change in use per customer, regardless of the cause.

Finally, if the Commission wants to move cautiously on these subjects, I would recommend that the Commission approve them as pilot programs. My experience with pilot programs in Oregon and Utah indicates that they provide regulators and other parties the opportunity to observe how a mechanism functions without the risk of incurring the long-term adverse effects they suspect might come to pass. In addition, they provide the opportunity to fine tune the mechanism in response to real-world experience. While I believe that RDAP and WNAP are well-designed programs that will outlive a pilot program period, the use of a pilot may provide information that allows for the mechanisms to be improved.